DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake:	WILSON POND	Lake Area (ha):	4.45
Town:	KEENE	Maximum depth (m):	1.8
County:	Cheshire	Mean depth (m):	0.9
River Basin:	Connecticut	Volume (m^3):	38500
Latitude:	42°56'25" N	Relative depth:	0.8
Longitude:	72°19'15" W	Shore configuration:	1.20
Elevation (ft):	505	Areal water load (m/yr):	195.0
Shore length (m):	900	Flushing rate (yr^{-1}):	225.0
Watershed area (ha):	1898.5	P retention coeff.:	0.09
% watershed ponded:	0.1	Lake type:	natural w/dam

BIOLOGICAL:		22 January 1992	9 July 1991
DOM. PHYTOPLANKTON (% TOTAL)	#1	NO PHYTOPLANKTON RESULT	SYNEDRA 60%
	#2		
	#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)			840
CHLOROPHYLL-A (µg/L)			5.39
DOM. ZOOPLANKTON (% TOTAL)	#1	NO ZOOPLANKTON RESULTS	SPARSE - NO DOMINANT
	#2		(HORIZONTAL NET TOW -
	#3		NO CELL COUNTS)
ROTIFERS/LITER			
MICROCRUSTACEA/LITER			
ZOOPLANKTON ABUNDANCE (#/L)			
VASCULAR PLANT ABUNDANCE			Very abundant
SECCHI DISK TRANSPARENCY (m)			1.3 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)		12.9	11.0
BACTERIA (fecal col., #/100 ml)	#1		< 10
	#2		< 10
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m^3) : None
Anoxic volume (m^3) : None

CHEMICAL:

Lake: WILSON POND
Town: KEENE

	22 January 1992		9 July 1991		
DEPTH (m)	1.0		1.0		
pH (units)	6.5		8.8		
A.N.C. (Alkalinity)	26.0		41.2		
NITRATE NITROGEN	0.75		0.94		
TOTAL KJELDAHL NITROGEN					
TOTAL PHOSPHORUS	0.022		0.019		
CONDUCTIVITY (μmhos/cm)	195.9		253.8		
APPARENT COLOR (cpu)	29		38		
MAGNESIUM			5.23		
CALCIUM			17.5		
SODIUM			22.4		
POTASSIUM			3.94		
CHLORIDE	23		41		
SULFATE	14		15		
TN : TP					
CALCITE SATURATION INDEX					

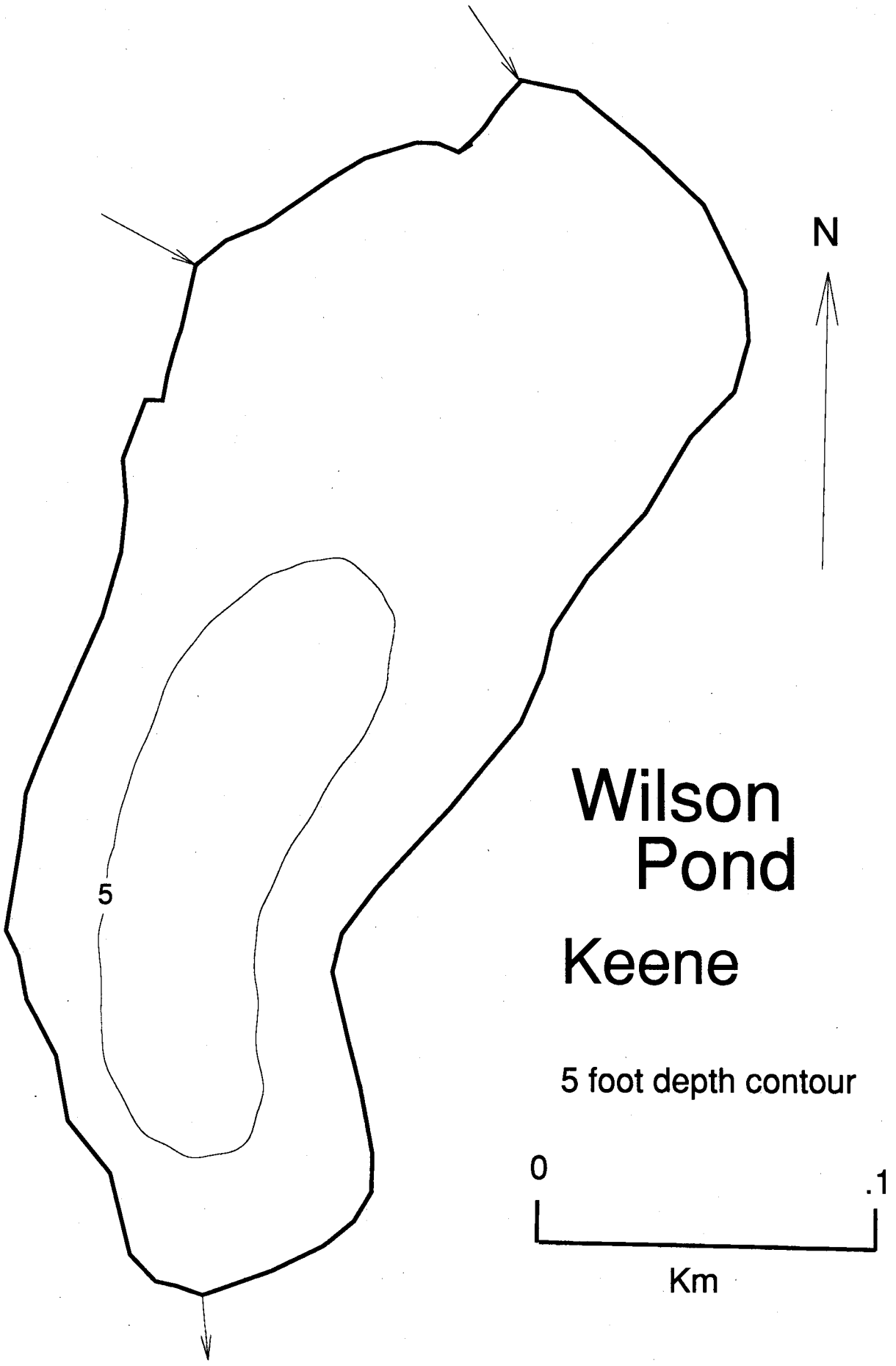
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1991

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	3	6	1	10	Eutro.

COMMENTS:

1. This pond was not listed in the 1964 report of ponds over 10 acres.
2. Pond level was about 1 to 2 feet below normal.
3. The dominant genera of wholewater plankton were Chroomonas (35%), small pennate diatoms (25%) and Cryptomonas (25%).


N
Wilson
Pond
Keene
5
5 foot depth contour
0
.1
Km

FIELD DATA SHEET

LAKE: WILSON POND
DATE: 07/09/91

TOWN: KEENE
WEATHER: PARTLY SUNNY, WARM & BREEZY

	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	25.0	11.2	135 %
	0.5	25.0	11.1	134 %
	1.0	25.0	11.0	133 %

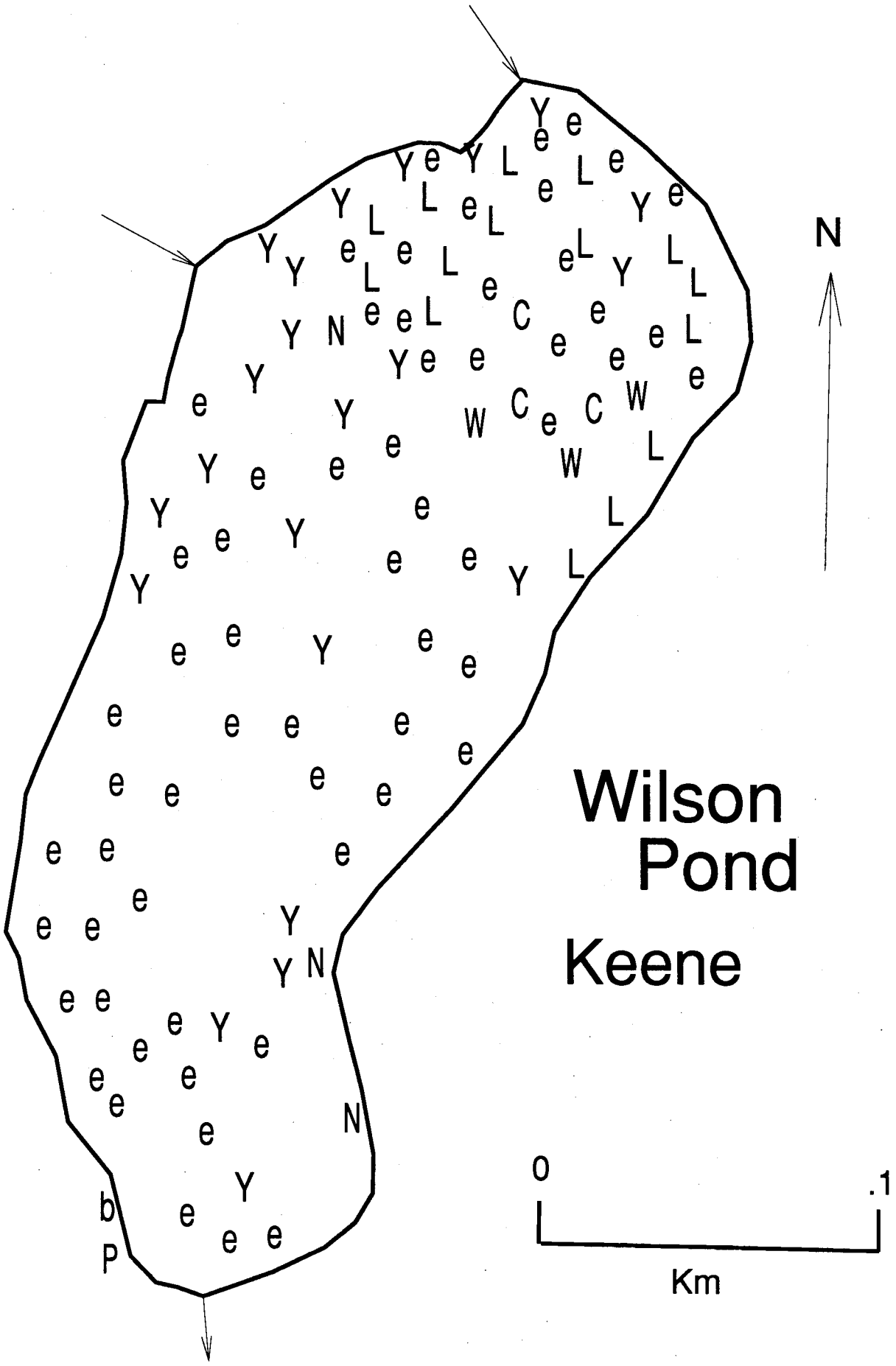
SECCHI DISK (m): 1.3 VOB

BOTTOM DEPTH (m): 1.3

TIME: 1330

COMMENTS:

*Dissolved oxygen values are in mg/L


N
Wilson
Pond
Keene
0
.1
Km

AQUATIC PLANT SURVEY

LAKE: WILSON POND TOWN: KEENE DATE: 07/09/91

Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
e	Elodea nuttallii	Waterweed	Very abundant
Y	Nuphar	Yellow water lily	Scat/Common
N	Nymphaea	White water lily	Sparse
W	Potamogeton	Pondweed	Scattered
C	Ceratophyllum demersum	Coontail	Common/Abun
L	Lemna	Duckweed	Sparse
b	Scirpus	Bulrush	Sparse
P	Pontederia cordata	Pickerelweed	Sparse
		Bottom growth	Very abundant

OVERALL ABUNDANCE: Very abundant

GENERAL OBSERVATIONS:

1. Most of the pond's bottom was covered with bottom growth. Some of this was Elodea but other genera were also present but are not depicted on the plant map.